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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,975	12/29/2000	Charles Elkins	V199-1933	9062

7590 12/19/2003

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EXAMINER	
PRONE, JASON D	
ART UNIT	**PAPER NUMBER**
3724	

DATE MAILED: 12/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/751,975	Applicant(s) ELKINS ET AL.	
	Examiner Jason Prone	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 December 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a)☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4)☐ Interview Summary (PTO-413) Paper No(s). _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by DeRoo, Sr.

DeRoo, Sr. discloses the same invention including at least one splitting element (Fig. 3), at least one torque inducing element (11) using edge loading to force the work piece onto the splitting element and breaking the work piece, that the torque inducing element is capable of forcing a multiple board array without loading electrical components (Fig. 3), and that the splitting element is a wedge (Fig. 3).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2 and 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeRoo, Sr. in view of Deshet. DeRoo, Sr. discloses the invention but fails to disclose a stabilizing element that exerts a load on the surface of the work piece and reduces the flex and that the stabilizing element includes a plate element and a plurality of springs

that push the plate element onto the work piece. Deshet teaches a stabilizing element that exerts a load on the surface of the work piece and reduces the flex (Fig. 1) and that the stabilizing element includes a plate element (3) and a plurality of springs that push the plate element onto the work piece (Fig. 1). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided DeRoo, Sr. with a stabilizing element, as taught by Deshet, to prevent the work piece from moving during the cutting operation.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeRoo, Sr. in view of Fetouh. DeRoo, Sr. discloses the invention but fails to disclose that the splitting element is block shaped. Fetouh teaches a block shaped splitting element (58). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided DeRoo, Sr. with a stabilizing element, as taught by Fetouh, to allow for an alternate splitting means.

6. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeRoo, Sr. in view of Duecker. DeRoo, Sr. discloses the invention but fails to disclose a transport element with a plurality of wheels, and that at least one torque moving element is a pneumatic lever. Duecker teaches a transport element (24) with a plurality of wheels (25), and that at least one torque moving element is a pneumatic lever (45). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided DeRoo, Sr. with a transport element and a pneumatic lever as a torque moving element, as taught by Duecker, to automatically move the material into position and to provide an alternate means to control the torque.

7. Claims 9, 12, 14, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeRoo, Sr. in view of Duecker. DeRoo, Sr. discloses the invention including at least one splitting element (Fig. 3), at least one torque inducing element (11) using edge loading to force the work piece onto the splitting element and breaking the work piece, that the torque inducing element is capable of forcing a multiple board array without loading electrical components (Fig. 3), and that the splitting element is a wedge (Fig. 3) but fails to disclose a transport element with a plurality of wheels, and that at least one torque moving element is a pneumatic lever. Duecker teaches a transport element (24) with a plurality of wheels (25), and that at least one torque moving element is a pneumatic lever (45). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided DeRoo, Sr. with a transport element and a pneumatic lever as a torque moving element, as taught by Duecker, to automatically move the material into position and to provide an alternate means to control the torque.

8. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeRoo, Sr. in view of Duecker as applied to claims 9, 12, 14, and 15 above, and further in view of Deshet. DeRoo, Sr. and Duecker disclose the invention but fail to disclose a stabilizing element that exerts a load on the surface of the work piece and reduces the flex and that the stabilizing element includes a plate element and a plurality of springs that push the plate element onto the work piece. Deshet teaches a stabilizing element that exerts a load on the surface of the work piece and reduces the flex (Fig. 1) and that the stabilizing element includes a plate element (3) and a plurality of springs

that push the plate element onto the work piece (Fig. 1). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided DeRoo, Sr. in view of Duecker with a stabilizing element, as taught by Deshet, to prevent the work piece from moving during the cutting operation.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeRoo, Sr. in view of Duecker as applied to claims 9, 12, 14, and 15 above, and further in view of Fetouh. DeRoo, Sr. and Duecker disclose the invention but fail to disclose that the splitting element is block shaped. Fetouh teaches a block shaped splitting element (58). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided DeRoo, Sr. in view of Dueker with a stabilizing element, as taught by Fetouh, to allow for an alternate splitting means.

10. Claim 16-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeRoo, Sr. in view of Duecker, Deshet, and Fetouh as applied to claims 1-15 and 20 above, and in further view of Sutton. DeRoo, Sr., Duecker, Deshet, and Fetouh disclose the method but fail to disclose that the work piece being separated is a multiple array of circuit boards. Sutton teaches the separation of a multiple array of circuit boards (32). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided DeRoo, Sr. in view of Duecker, Deshet, and Fetouh with the method of separating a multiple array of circuit boards, as taught by Sutton, to allow for a more precise method of separation circuit boards.

Response to Arguments

11. Applicant's arguments filed 01 October 2003 have been fully considered but they are not persuasive. In regards to claims1-15 and 20, Applicant argues that the DeRoo, Sr., Deshet, Duecker, and Fetouh patents do not disclose each element in the claims. It is true that these patents do not disclose the splitting of a circuit board, however, an apparatus to cut a specific work piece is being claimed and not a method to cut a circuit board. The DeRoo, Sr., Deshet, Duecker, and Fetouh patents reveal every structural element disclosed in the claims. The fact that this apparatus cuts a circuit board does not further limit the structure of the apparatus making the cuts. Applicant's argument that the DeRoo, Sr., Deshet, Duecker, and Fetouh patents do not disclose the splitting of a circuit board, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Therefore, the rejection is valid and will be made final.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Holliday, Lopez, Seki et al., Jackson, Hecker, Slepcevic, and Tripard.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Prone whose telephone number is 703-605-4287. The examiner can normally be reached on 7:30-5:00, Mon - (every other) Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 703-308-1082. In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

JP
December 1, 2003

Allan N. Shoap
Supervisory Patent Examiner
Group 3700